tre of the depression continued during the day below 29.20, and the following pressures were noted below the normal: Memphis, 0.92; Cairo, 0.89; Louisville, 0.85. The morning report of the 22d shows the lowest pressure in Indiana, with the barometer still rapidly rising in Nova Scotia. At this time the isobar of 30.60, with an average temperature of +10° extended from Father Point, Can., slightly to the east of Eastport, Me., the isobar of 29.60 with an average temperature of +50° extended from Baltimore, Md., to Erie, Pa. Both the temperature and pressure gradient indicated the severe gales that were felt on the New England and Middle Atlantic coasts on that day. At the a. m. report of the 23rd the centre of the low area had moved into Canada near the Georgian Bay. It then advanced with rapidly diminishing energy in an easterly path, into Nova Scotia and disappeared on the 24th beyond that coast. This was an unusually severe storm, and during its passage from the Pacific to the Atlantic the following high velocities are reported: 17th, Red Bluff, Cal., 44 miles, SE.; 20th Dodge City, Kan., 60 miles N.; Stockton, Tex., 52 miles W.; New Orleans, 40 miles SE.; Mobile, 42 miles SE.; 22nd, New London, Conn., 80 miles E.; 26th, Mt. Washington, 150 miles N.

No. XII.—On the 23rd the mercury fell in Oregon, with southerly winds and frequent rains; the centre of the low area moved in a southerly track along the coast, and at midnight of the 24th it was near San Diego, Cal. On the 25th it moved rapidly in a southeasterly track, and at the a. m. report of the 26th, the centre of the low area was situated to the south of Brownsville, Texas. On the 26th it moved over the Gulf in an easterly track, and was accompanied in the Gulf States by easterly winds backing to northwest. On the morning of the 27th it was central in southern Florida, and on that day moved to the east beyond the coast. The rain-fall in southern Florida was excessive. During its passage the following maximum wind velocity was reported: 22nd, Indianola, Tex., 84 miles N.

No. XIII.—On the 25th and 26th there was a general fall of pressure on the Pacific coast, with heavy rain and southerly gales. On the 27th the centre of the low area had moved into Utah, and on the 28th, still pursuing a southeasterly track, it had advanced into Texas.

As illustrating the service of the telegraph lines of the Signal Service and the signal stations established along the lines, equipped, as they are, for communicating with vessels in either the International Code or Signal Service Code, it may be stated that the Italian bark Giuseppe Massano, Captain Meretto, ran ashore near Cape Henry, Va., and was reported to the Signal Station at 6:55 a. m. of the 10th. Information was at once sent to the Chief Signal Officer at Washington, and assistance thence asked from Norfolk. It was attempted by Cape Henry station to open communication by means of the flags of the International Code, but receiving no response from the ship, Private Harrison, fully equipped with flags, etc., of the Signal Service apparatus, was sent aboard to open communication with the shore, which he did with very good result. The following appears in the report of Sergeant Bell, in charge of Signal Station at Cape Henry: "At one time during the morning, (11:30 a. m.,) when the crew abandoned the vessel, and the captain and first mate were preparing to abandon her, Private Harrison informed the captain that he should have more confidence in his signaling, and that by this means he would keep him fully informed of all particulars from shore, which eventually proved the means of saving the ship from total loss, and she was subsequently removed with but slight damage by the wrecking steamer from Norfolk, summoned by means of the coast lines. Again near Cape Hatteras on the 22nd, a vessel was noticed flying a signal of distress. An unsuccessful effort was made to open communication with her by means of the flags of the International Code. The life-saving station, twelve miles distant, was notified by messenger. Later in the day, and before assistance could reach her, the vessel drifted out to sea. Information had been sent as soon as the distress-signal was noticed to Norfolk by means of the sea-coast telegraph line, and the United States revenue-cutter Hamilton, Captain Irish, sailed to her rescue from that port. This revenue-cutter arrived off Hatteras Signal Station the next morning, and without landing opened communication with that station by the Signal Service Code—by which messages of any character may be communicated—learned all particulars in reference to direction in which vessel was last seen and other matters in reference to her, steamed to sea in search, and found two days later the schooner H. C. Cushing, of Boston, abandoned and in a sinking condition, near the Gulf Stream.

INTERNATIONAL METEOROLOGY.

October 7th to 12th, great storm along the entire coast of China, followed by extraordinary cold NW. winds. 14th, latitude 43° 30′ N., 60° W., hurricane, WNW. to W., lasting 12 hours, with lightning and heavy rain. 16th, off Cape of Good Hope, heavy SW. gale. 21st, 29° 24′ N., 132° E., gale. 22d, 54° 14′ S., 76° 14′ W., gale. November 5th, 34° N., 136° E., gale. 20th, off Cape of Good Hope, gale. 22d, 43° 4′ N., 125° W., gale. 23d, 46° 49′ N., 125° W., gale. December 10th, between Tortugas and Cape Florida light, heavy NE., gale; latitude 44° 7′ S., longitude 30° 57′ W., terrific gale, with tremendous sea. 23d, off island of Grand Cayman, Carribbean sea, NW. gale. 26th, 36° 25′ N., 2° 5′ W., heavy gale; off coast of Chili, gale. 30th, 20 miles SE. off Hatteras, terrific NNW. gale, lasting 3 days. January 1st, heavy gale off St. Catharine, Bermudas. 5th, 17° 21′ N., 58° 36′ W., hurricane. 6th, 25° 33′ N., 72° 71′ W., heavy NE. gale, lasting 20 hours. 10th, 30° 35′ N., 74° W., hurricane from SE., lasting 7 hours. 11th, 38° N., 70° to 72° W., hurricane SE. to N., lasting 7 hours; 37° 02′ S., 22° 43′ E., very heavy W. gale, lasting 12 hours. 13th, 40° 38′ N., 68° 52′ W., strong WNW. gale. 14th, 37° 71′ N., 71° W., hurricane from SE. to SW. 19th, 30° N., 50° W., heavy gale from SE. to N.; about 30° N., 50° W., hurricane from SSE., lasting 24 hours. 23d, 50° 13′ N., 22° W., strong WNW. gale; 45° N., 163° W., hurricane winds for 2 hours, barometer 28.34; British Isles, gales. 24th, 50° 10′ N., 26° 48′ W., and 49° 38′ N., 26° 17′ W., strong WNW. gales; 49° 40′ N., 7° 22′ W., NW. gale, with heavy squalls and hail; 44° 03′ N., 56° 11′ W., strong

WSW. gale, barometer 29.90. 28th, 54° 53′ N., 14° 20′ W. fierce NW. squalls, with hail and rain; 49° 08′ N., 16° 49′ W.; NW. fresh gale and hard squalls; 28° N., 70° W., heavy W. gale veering to NE., lasting 24 hours. 30th, 30 miles E. of Cape May violent E. gale; 32° 54′ N., 77° 32′ W., gale from SE., hauling to W. and NW., lasting 3 days. 31st, 40° 34′ N., 70° 50′ W., strong NE. gale and heavy snow-storm; 44° 40′ N., 44° 56′ W., thunder-storm from SW., followed by heavy NW. gale; 40° N., 73° 25′ W., gale from E., with snow; 35° 03′ N., 66° W., noon, heavy SE. gale veering to SW.; midnight, NW. gale, lasting until February 2d; 34° 26′ N., 75° 50′ W., heavy ESE. gale, lasting 24 hours; 100 miles E. of Sandy Hook, E. to SE. hurricane, lasting 12 hours; 37° N., 75° W., gale ENE., tremendous sea; about 49° 30′ N., 5° W., strong S. gale veering to W., followed February 1st by very high sea. February 1st, 40° N., 73° 25′ W., gale NE. and snow; 43° 21′ N., 50° 07′ W., 46° 44′ N., 48° 10′ W., 47° 28′ N., 38° 31′ W., and 49° 38′ N., 40° 26′ W., heavy NW gales and seas; 46° 14′ N., 40° 17′ W., furious SW. to NW. gale, immense sea; 47° 41′ N., 37° 36′ W., strong SW. gale, with hard squalls. 2nd, 44° 48′ N., 44° 51′ W., gale. 4th, 49° 37′ N., 31° 19′ W., strong S. gale, with high sea. 5th, 54° 31′ N., 18° 54′ W., strong WSW. gale and hard squalls; 34° 29′ N., 23° 13′ W., heavy SW. gale, veering to NW., lasting 24 hours; off the Banks of Newfoundland, terrible E. snow-storm, with tremendous sea; 49° N., 55° W., heavy gale. 6th, 44° 11′ N., 53° 27′ W., strong gale from SE. to NW.; 42° 40′ N., 52° 02′ W., strong SW. gale; 28° 04′ N., 60° 31′ W., terrific squalls, followed by NW. gale, lasting through the 7th; 54° 02′ N., 26° 04′ W., hard SSW. gale; 46° 29′ N., 43° 02′ W., and 50° 23′ N., 19° 13′ W., strong S. gale; 46° 53′ N., 34° 26° W., heavy SE. gale; 40° N., 42° W., hurricane, with terrific cross-seas. 7th, 44° 25′ N., 53° W., hurricane from N.; 46° N., 44° W., hurricane, SW. to NW.; 43° 14′ N., 56° 32′ W., strong NNW. gale; 41° 54′ N., 54° 56′ W., very heavy W. gale; 45° 13′ N., 45° 54′ W., strong gale. 8th, 42° 30′ N., 60° 08′ W., and 43° 53′ N., 48° 38′ W., strong NW. gales. 9th, 45° 02′ N., 44° 50′ W., heavy NW. gale and very high seas. 10th, 33° 22′ N., 68° 07′ W., gale from ENE; 44° 32′ N., 48° 08′ W., strong WNW. gale. 11th, 35° 40′ N., 73° 35′ W., heavy WSW. gale. 13th, 44° 29′ N., 47° 41′ W., strong NW. gale; 46° 36′ N., 38° 07′ W., heavy NW. gale, with violent squalls and snow. 14th, 45° 06′ N., 41° 52′ W., heavy NW. gale and hail-squalls; 47° 13′ N., 38° 04′ W., hard SSW. to WNW. gale; 50° 30′ N., 36° 42′ W., violent NNW. gale, fierce squalls, snow and sleet; 48° 53′ N., 36° 02′ W., heavy NW. gale; 48° 55′ N., 34° 33′ W., strong and violent S. to NNW. gales, with terrific squalls and high, confused sea. 15th 35° N., 67° W., S. gale; 44° 02′ N., 44° 50′ W., 45° 35′ N., 42° 25′ W., 48° 49′ N., 38° 47′ W., and 48° 26′ N. 38° 01′ W., hard NW. and W. gales, with fierce squalls, snow and sleet. 16th, 47° 21′ N., 42° 15′ W., 50° 17′ N., 29° 21′ W., and 49° 5′ N., 26° 34′ W., strong NW. to SW., gales, with hard snow-squalls. 17th, 48° 57, N., 35° 28′ W., and 49° 29′ N., 31° 55′ W., strong NW. gales, with heavy squalls; 55° 20′ N., 9° 21′ W., and 55° 25′ N., 9° 48′ W., strong southerly gales. 18th, 47° 69′ W., NNE. gale, lasting 36 hours; 46° 43′ N., 40° 41′ W., violent gales, (W.-E.-N.;) 48° 45′ N., 39° 08′ W., strong SW. to SE. gale; 55° 18′ N., 13° 11′ W., strong NW. to SW. gale; 50° 37′ N., 27° 40′ W., heavy NW., to S. gale. 19th, 32° N., 73° W., violent NW. and SE. gales, with heavy rain; 42° 12′ N., 64° 28′ W., N. gale; 44° 47′ N., 45° 26′ W. violent NW. to SSW. gale; 47° 20′ N., 42° 59′ W., hurricane-like gale from NE. to W., with tremendous sea; 54° 23′ N., 19° 21′ W., severe NW. gale, high sea; 50° 05′ N., 20° 32′ W., and 49° 40′ N., 19° 42′ W., heavy SW. gales; 25° N., 63° W., heavy SW. to NW. gale, lasting 12 hours. 20th, 43° 37′ N., 48° 56′ W., violent to moderate SSW. to NW. gale; 46° 21′ N., 49° 28′ W., strong SSW. to NNW. gale; 53° 51′ N., 22° 09′ W., hard WNW. to WSW. gale; 50° 56′ N., 27° 37′ W., hard NW gale, with terrific squalls; 49° 42′ N., 26° 55′ W., heavy westerly storm; 49° 34′ N., 21° 27′ W.. strong SW. to NW. gale with heavy squalls. 21st, 52° 54′ N. 26° 20′ W., and 49° 17′ N., 25° 26′ W., strong SW. gales; 48° 07′ N., 35° 57′ W., hurricane from W., with very heavy sea. 22nd, 36° N., 72° W., violent SE. gale, lasting 48 hours; 52° 34′ N., 29° 17′ W., 48° 05′ N., 34° 30′ W.. 48° 31′ N., 37° 52′ W., and 48° 37′ N., 37° 51′ W., strong and hard W. to SW. gales; 28° N., 79° W., heavy NNW. gale and sea, lasting 12 hours. 23rd, two hundred and fifty miles SW. of Bermuda, heavy NW. gale; 47° 49′ N., 35° 34′ W., furious E. gale, with violent squalls and constant heavy rain. 24th, 49° 12′ N., 41° 04′ W., strong ENE gale; 43° N., 53° 21′ W., SE. gale; 45° 04′ N., 41° 12′ W., violent NE. storm, mountainous sea. 25th, 37° N., 73° 40′ W., heavy NW. gale, lasting 48 hours. 26th, 43° 26′ N., 48° 34′ W., heavy NE. squalls, with heavy rain and snow. 27th, 43° 39′ N., 56° 40′ W., 45° N., 45° 36′ W., and 35° 53′ N., 71° 52′ W., heavy NW. gales.

TEMPERATURE OF THE AIR.

In General.—The general distribution of the temperature of the air is shown by the isotherms on chart No. II. By reference to the table of comparative temperatures, in the left-hand corner of same chart, it will be seen that the high temperatures existing during January have continued, in a still more marked degree, throughout the present month. The largest deviation occurs in Minnesota, where the mean temperature of four stations is 18°.7 above the normal. In the Missouri and Upper Mississippi valleys and Upper Lake region the excess is from 9° to 16°; thence eastward to the Atlantic coast and St. Lawrence valley from 4° to 5°, and from the Ohio valley to the Gulf coast and in the Rocky mountain region from 2° to 3°. In the Pacific and South Atlantic coast States the excess is quite small.

Monthly mean temperatures at special points have been as follows: Pike's Peak, 2°.5; Mt. Washington, 10°.2.

Maximum and Minimum Temperatures.—Maximum temperatures, at Signal Service and voluntary stations above 70°, are reported as follows: 85° at Flatonia, Fla.; 81° at Fredericksburg, Tex.; 80° at Stockton, Concho, Fort Griffin, Fort McKavitt, Tex., and Okahumpka, Fla.; 79° at Mason, Tex.; 78° at Jacks-